Advanced Family of COMJAM Systems

Smart, Flexible Systems for Selective Air and Ground JammingSolution

Technical Specifications

Ground COMJAM Systems

Parameter	HF Band	V/UHF Band
Frequency band	2-30MHz	20-3000 MHz
Power output (typical)	1 to 2KW	20-500 MHz 1KW 500-1000 MHz 500W 1000-3000 MHz 250W
Antenna	Omni-directional	▪ Omni-directional ▪ Directional
Transmission resolution	10 Hz	100 Hz
Jamming modes	Automatic: ▪ Signal Initiated Jamming ▪ Sequential Jamming ▪ Multi-Carrier Jamming Broadband Jamming Manual Jamming	
Harmonics suppression	-50 dBc	
Harmonic filters	Low-Pass or Sub-octave filters	

COMJAM for Mission Aircraft

Parameter	Specs
Frequency	band 20-3000 MHz
Power output	20-500 MHz 500W-1KW 500-1000 MHz 250W-500W 1000-3000 MHz 100W-250W
Antenna	▪ Omni-directional ▪ Directional
Transmission resolution	100 Hz
Jamming modes	Automatic: ▪ Signal Initiated Jamming ▪ Sequential Jamming ▪ Multi-Carrier Jamming Broadband Jamming Manual Jamming
Harmonics suppression	-50 dBc
Harmonic filters	Low-Pass or Sub-octave filters

SKYJAM – COMJAM Payload for UAS

Parameter	Specs
Frequency band	30-500 MHz (optional: 30-3000 MHz)
Power output	50W
Antenna	Omni-directional
Transmission resolution	100 Hz
Jamming modes	Automatic: ▪ Signal Initiated Jamming ▪ Sequential Jamming ▪ Multi-Carrier Jamming Broadband Jamming
Power consumption	<750W
Weight	<35 kg

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**Today's modern battlefields increasingly depend on the Electromagnetic Spectrum,
reflecting the critical need for Electronic Attack (EA) systems that can deny or reduce
an enemy's effective use of this spectrum in order to degrade and neutralize its combat
capabilities.**

Elisra's Answer

In response to this urgent demand, Elisra has developed a family of COMJAM systems for air (manned and unmanned) and ground (fixed and mobile) platforms, as part of its Electronic Attack family of solutions. The company's COMJAM systems are combat-proven and in-service with many armies across the world. Elisra's cutting-edge systems utilize sophisticated algorithms combined with components based on the most advanced technologies available today.

These state-of-the-art jamming systems are able to cope with conventional communications as well as the latest communication methods, including frequency hopping.

Elisra's smart systems are equipped with a "look-through" mechanism for reception and activity detection, enabling precisely-timed, selective jamming of only targeted active signals. In addition, they allow prioritization of targets and the concentration of power on specific targets at any given moment, thus maximizing jamming efficiency.

Ground-Based COMJAM Systems

The ground-based COMJAM systems are an extremely important component in an integrated EW system, providing capability to attack enemy's communications as part of the assistance to friendly forces.

Elisra's tactical ground-based COMJAM systems are modular, flexible, and configured to meet existing and emerging threats. They are adaptable to all land platforms, both stationery and mobile, including AFVs which can escort front line forces - an option recognized as an invaluable tactical asset. The COMJAM system comprises state-of-the-art components such as agile wideband digital receivers, activity detectors and exciters, very fast T/R switches and wideband antennas.

COMJAM for Mission Aircraft

Diverse, fully automatic, and adaptable, Elisra's COMJAM solutions are specially designed for installation on-board Mission Aircraft. Among the key advantages of integrating COMJAM systems on Aerial Platforms is the expanded spatial coverage - which enables the provision of simultaneous assistance to multiple forces. In addition, terrain independence and reception of weak signals enhance the system's jamming efficiency and provide improved EW capabilities. Another clear benefit of airborne COMJAM implementation is the significantly increased flexibility in response to unexpected and rapidly changing operational scenarios and real-time changes in operational missions.

SKYJAM - COMJAM for UAS

SKYJAM is a battle-proven, modular, flexible, and customizable airborne COMJAM payload for UAS (Unmanned Aerial Systems). Operated in automatic or manual modes, the system manages prioritized jamming of multiple frequency sub-bands and predefined lists of threats. Deployed either as a stand-alone jammer or integrated with additional Elisra EW support systems, SKYJAM can be mounted on a variety of airborne platforms as well as providing the ideal solution for forward battlefield areas. User-friendly, SKYJAM's modular systems span the full frequency band - from VHF to UHF.
Customers can select systems operating over a single VHF/UHF band, or a solution which covers multiple bands.

COMJAM Systems - Main Features

- High-power solid-state amplifiers
- Agile synthesizers
- Complex modulation generation capability
- Integrated agile receiving and activity detection subsystems for look-through
- Manual or automatic operation
- "Power management" via sophisticated algorithms
- Jamming options:
    - Signal Initiated Jamming (SIJ)
    - Sequential Jamming
    - Multi-Carrier Jamming
    - Wideband / Barrage Jamming